# **REMARKS**

This responds to the Office Action mailed on May 16, 2005.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-40 are now pending in this application, with claims 1-4 currently pending examination. Applicant respectfully requests reconsideration of the above-identified application in view of the remarks that follow.

## First §103 Rejection of the Claims

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over VanDover (U.S. 6,093,944) in view of Scobey et al. (U.S. 6,115,401). Applicant traverses these grounds of rejection of the claims.

Applicant cannot find in the combination of VanDover and Scobey et al. (hereafter Scobey) a teaching or a suggestion of an ion assisted electron beam evaporated TiO<sub>x</sub> layer doped with a lanthanide as recited in claim 1. VanDover mentions various forms of a T<sub>1-v</sub>M<sub>v</sub>O<sub>x</sub> composition, where M is a lanthanide selected from neodymium (Nd), terbium (Tb), and dysprosium (Dy). The various forms may be a sputtered  $T_{1-y}M_yO_x$  composition, a plasmaenhanced CVD  $T_{1-y}M_yO_x$  composition, a laser ablated  $T_{1-y}M_yO_x$  composition, and a reactive sputtered T<sub>1-v</sub>M<sub>v</sub>O<sub>x</sub> composition. See VanDover, Summary and column 6, lines 59-64. Scobey notes that in addition to structures using silica, niobia may be formed as an ion assisted electron beam evaporated niobia. See Scobey, column 10, lines 55-60. Applicant submits that niobia is a form of niobium, atomic number 41. Niobium is not a lanthanide. Applicant submits that Scobey, like VanDover, lacks a teaching or a suggestion of a lanthanide doped ion assisted electron beam evaporated TiO<sub>x</sub> layer. Further, since VanDover relates to a T<sub>1-v</sub>M<sub>v</sub>O<sub>x</sub> composition in the abovementioned forms, where M is a lanthanide selected from Nd, Tb, and Dy, and Scobey relates structures having silica or a form of niobium (Nb), Applicant submits that the combination of VanDover and Scobey is not proper. Therefore, Applicant submits that VanDover in view of Scobey does not teach or suggest all the elements of claim 1 and that claim 1 is patentable over VanDover in view of Scobey.

Claims 2 and 3 depend on claim 1 and are patentable over VanDover in view of Scobey for at least the reasons stated above.

Applicant respectfully requests withdrawal of these rejections of claims 1-3, and reconsideration and allowance of these claims.

# Second §103 Rejection of the Claims

Claim 4 was were rejected under 35 U.S.C. § 103(a) as being unpatentable over VanDover in view of Scobey et al. as applied to claim 1 above, and further in view of Gardner et al. (U.S. 6,225,168). Applicant traverses these grounds of rejection of the claims.

Applicant cannot find in VanDover in view of Scobey and further in view of Gardner et al. (hereafter Gardner) a teaching or suggestion of an ion assisted electron beam evaporated TiO<sub>x</sub> layer doped with a lanthanide, as recited in claim 1. Applicant submits that Gardner does not cure the deficiencies of applying VanDover in view of Scobey to claim 1 as discussed above. Therefore, Applicant submits that claim 1 is patentable over VanDover in view of Scobey and further in view of Gardner for at least the reasons discussed above. Claim 4 depends on claim 1 and is patentable over VanDover in view of Scobey and further in view of Gardner for at least the reasons discussed above.

Applicant respectfully requests withdrawal of these rejections of claims 4, and reconsideration and allowance of this claim.

#### Withdrawn Claims

In the Restriction Requirement for the instant application mailed 21 March 2005, claim 1 was noted as being generic to the original claims. With the allowance of claim 1, Applicant respectfully requests the rejoinder and allowance of claims 5-40. See M.P.E.P. 809.

# Assertion of Pertinence

Applicant has not responded to the assertion of pertinence stated for the patents cited, but not relied upon, by the Office Action since these patents are not relied upon as part of the rejections in this Office Action. Applicant is expressly not conceding they have any pertinence and reserves the right to respond more fully should any of them form a part of some future rejection.

Serial Number: 10/789,044 Filing Date: February 27, 2004

Title: LANTHANIDE DOPED TIOX DIELECTRIC FILMS

# CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 16 Hypert 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 4 day of August, 2005.

Name

Signature